

In the Claims

The claims have been amended as follows:

1. (previously presented) An article for low-pressure wire bonding of an integrated circuit chip to a substrate, said article comprising:
 - a metallic wire material;
 - a metallic interconnect within said substrate;
 - an alloying metal deposited directly on said metallic interconnect or over a barrier layer that is placed directly over said metal interconnect, said alloying metal comprising alloying metals other than said metallic wire material; and
 - a resultant alloy material formed between said interconnect and said metallic wire or over a barrier layer that is placed directly over said metal interconnect connected to said integrated circuit chip, said resultant alloy material including a composition of said metallic wire material and said alloying metal, and formed when said metallic wire is in contact with said metallic interconnect under temperature, pressure, and energy lower than that required for bonds that are not exposed to said alloy material.
2. (previously presented) The article of claim 1 wherein said metallic interconnect includes copper.

3. (previously presented) The article of claim 1 wherein said resultant alloy material comprises a low melting temperature material including Au-Sn or Au-In, and wherein said Au originates from, and is deposited by, said metallic wire.

4. (previously presented) The article of claim 3 wherein a concentration of said Sn of said alloy material is used to vary said alloy material's melting point to be greater than that of said alloying metal.

5. (previously presented) The article of claim 1 wherein said metallic wire is comprised of gold.

6-20. Cancelled.

21. (previously presented) The article of claim 1 including having said metallic wire material comprise a first metal and said metallic interconnect comprise a second metal, wherein said first metal is a different metal than said second metal.